

Remarks/Arguments:

Claims 1-25 have been canceled. Claims 26-35 have been amended. Claims 36-39 are newly added.

Section 103 Rejections

Applicants have now canceled claims 1-25. **Newly added claim 36** includes the following features:

- (a) storing as a control input **a sequential change, first (i) of a first hand pattern, formed of at least one finger, and then second (ii) of a second hand pattern, formed of at least one finger, the second hand pattern different from the first hand pattern;**
- (b) imaging, by the camera, the first hand pattern;
- (c) imaging, by the camera, the second hand pattern;
- (d) **recognizing the first hand pattern** imaged in step (b);
- (e) **recognizing the second hand pattern** imaged in step (c);
- (f) **comparing** a sequential change of **first step (d)** and then **second step (e)** to the stored control input; and
- controlling the information on the display, after the comparing of step (f).

Basis for the features of claim 36 may be found, for example, in the specification at page 28, line 20 to page 30, line 1, and as shown, for example, in Figs. 9A-9B, 10A-10D and 15A-15D. As shown, a first hand pattern is imaged, then a second hand pattern is imaged. The second hand pattern is different from the first hand pattern. As discussed at the bottom of page 28, a user performs a control input by changing the hand pattern from pattern A to pattern B. The position detecting means then references the image patterns to image patterns

in storage that match the hand pattern change from pattern A to pattern B. If the pattern change is found between pattern A and pattern B, for example, the input means generates a control associated with this pattern change.

As discussed at the middle of page 29, when a user, for example, moves his hand from left to right while keeping the hand pattern B, as shown in Fig. 10C, a cursor displayed on the display surface is dragged to move the object in the rightward direction across the screen. As another example, a **hand pattern change from pattern A to pattern B and back to pattern A from pattern B** is illustrated in Figs. 11A to 11C. This pattern change corresponds to a mouse single click. As still another example, a **hand pattern change from pattern A to pattern B, then pattern A, then pattern B, and then back to pattern A** is illustrated in Figs. 12A to 12E. This pattern change corresponds to a mouse double click. These pattern recognitions, which require more than two recognizing steps, form basis for newly added claim 37.

The Applicants' invention, as recited in new claim 36, includes features which are not anticipated or suggested by the cited references, as set forth below.

Sigel discloses imaging a finger, so that the system may recognize it as a mouse. As disclosed by Sigel, at column 4, lines 9 to 12, the input terminal recognizes the presence, position and orientation of a **pointing finger** in the image, in order to replace the data input function of a conventional "mouse". Sigel also discloses, at column 4, lines 27-40, a system that recognizes the orientation of a **pointing finger** to select options. For example, the system recognizes the angle of the user's finger to indicate a selected position on a bar graph. The selected position, however, is entered when the user strikes a key on a key board.

Accordingly, Sigel only recognizes a **pointing finger** and whether the finger is oriented outward, right or left to indicate a selected position on a bar graph. Sigel recognizes only a **single pattern of the pointing finger**. Sigel, on the other hand, does **not** disclose **recognizing a first hand pattern, next recognizing a second hand pattern**, wherein the **second hand pattern is different from the first hand pattern** (as claimed). Sigel does **not** disclose **comparing a sequential change between the first hand pattern and the second hand pattern**. Sigel does **not** disclose controlling the information on the display **using the results of the comparison** of the first hand pattern and the second hand pattern.

Gale discloses a projection micro display. Gale, on the other hand, does **not** disclose the features of claim 36, namely **recognizing a first hand pattern, then recognizing a second hand pattern**. Furthermore, Gale does **not** disclose **comparing a sequential change** between the step of recognizing the first hand pattern and the step of recognizing the second hand pattern. Furthermore, Gale does **not** disclose controlling the information on the display **based on the comparison of the sequential change**.

Nishiyama discloses a portable telephone configured to operate various buttons, including a pointer with only one hand, while holding the telephone itself in the same hand. Nishiyama, on the other hand, does **not** disclose the features of claim 36, as enumerated above.

Favorable consideration is requested for claim 36 and its dependent claim 37. **Dependent claim 37** further limits claim 36 by requiring **recognizing another first hand pattern and recognizing another second hand pattern**, and comparing a **further sequential change from the second hand pattern to the first hand pattern**. None of the cited references disclose recognizing a first sequence of hand pattern changes and then a second sequence of hand pattern changes.

Although not the same, newly added **claim 38** includes features similar to claim 36, namely:

- storing as a control input **a sequential change, first (i) of a first object forming a first pattern, and then second (ii) of a second object forming a second pattern, the second pattern different from the first pattern**;
- imaging, by the camera, the first pattern;
- imaging, by the camera, the second pattern;
- recognizing the first pattern . . . ;
- recognizing the second pattern
- **comparing a sequential change of the first (recognition)step and then the second (recognition) step to the stored control input**; and
- controlling the information on the display, after the comparing step.

The features of newly added claim 38 are not disclosed by the cited references, as discussed above with respect to newly added claim 36.

Claim 39 depends from any one of claims 36-38 and is, therefore, not subject to rejection in view of the cited references for at least the reasons set forth for claim 36.

Claim 26 has been amended to include features similar to the features of newly added claim 36. It is respectfully submitted that amended claim 36 is not subject to rejection in view of the cited references for at least the same reasons set forth for claim 36.

Claims 27-35 depend from amended claim 26 and, therefore, are not subject to rejection in view of the cited references for at least the same reasons set forth for newly added claim 36.

Appln: No. 09/824,397
Amendment Dated: February 18, 2004
Reply to Office Action of November 19, 2003

MTS-3247US

Conclusion

Claims 26-35 are in condition for allowance. Newly added claims 36-39 are also in condition for allowance.

Respectfully submitted,

RatnerPrestia

Allan Ratner, Reg. No. 19,717
Jack J. Jankovitz, Reg. No. 42,690
Attorneys for Applicant

JJJ/dlm

Dated: February 18, 2004

P.O. Box 980
Valley Forge, PA 19482-0980
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

2/18/04

Danielle Murphy

DLM_I:\MTS\3247US\AMEND_02.DOC